WHAT IS CLAIMED IS:

1. A card comprising:

generally parallel top and bottom surfaces defining a space therebetween and four sides around the edge of the card; and

a multiplicity of light pipes randomly placed between the top and bottom surfaces of said card, said light pipes being randomly placed to produce a random pattern within the space, whereby the pattern formed within any particular card is different from any other card.

2. A card as claimed in claim 1 wherein said space is typically less than 30 millimeters in height and wherein each light pipe has a diameter in the range of 10 millimeters.
3. A card as claimed in claim 1 wherein said light pipes are optical fibers which extend between two edges of each card.
4. A card as claimed in claim 3 wherein there is at least one layer of optical fibers between the top and bottom surfaces of each card.
5. A card as claimed in claim 1 further including an information storage element on the card, and wherein the card, when formed, is illuminated to generate a signal pattern corresponding to the random pattern formed within the space; and wherein the signal pattern is sensed and information corresponding thereto is

encoded in the information storage element to enable the card to be validated at a future time.

6. A card as claimed in claim 5 wherein said information storage element is one of a magnetic stripe, a bar code, a hologram and a semiconductor circuit.

7. A card comprising:

generally parallel top and bottom surfaces defining a space therebetween and four sides around the edge of the card;

a multiplicity of light conducting elements having first and second ends for the conduction of light therebetween are placed between the top and bottom surfaces of said card; and

selected ones of said multiplicity of light conducting elements go from an edge of the card and terminate at an internal region of the card, where the internal region lies below the top surface and above the bottom surface and does not extend to another edge of the card, whereby the location of the termination point of the selected light conducting elements is hidden from view.

8. A card as claimed in claim 7, wherein said selected ones of said light conducting elements are light pipes.

9. A card as claimed in claim 8 wherein said light pipes are for the transmission of light illuminating one of the top and bottom surfaces in the area of the card in the area of the internal region.

10. A card as claimed in claim 7, wherein said selected ones of said light conducting elements are optical fibers.

11. A card as claimed in claim 10, wherein the end of said optical fibers terminating at the internal region are pitted to enhance one of: (a) the emission of light; and (b) the reception of light.

12. A method for impeding the counterfeiting of an instrument having top and bottom surfaces defining a space therebetween comprising the step of:

forming random optical patterns in one of (a) said top surface, (b) said bottom surface and (c) the space between said top and bottom surfaces, whereby each instrument has a different optical pattern and corresponding spectral response than any other instrument.

13. A method as claimed in claim 12 wherein the instrument is an optical data storage disc having a region which is translucent and wherein the step of forming random optical patterns includes distributing a multiplicity of strands randomly between the top and bottom surfaces within said translucent region.

14. A method as claimed in claim 13 wherein the strands are opaque fibers.

15. A method as claimed in claim 12 wherein the instrument is an optical data storage disc having a region which is translucent and wherein the step of forming random optical patterns includes etching or laser burning a multiplicity of randomly selected points on one of the top and bottom surfaces within said translucent region.

16. A method as claimed in claim 12 wherein said instrument is an optical data storage disc having a first annular region extending a given distance from the

center of the disc and having a second annular region extending between the first annular region and the edge of the disc, wherein said first annular region is translucent and said second annular region is for the storing of data to be read; and wherein the step of forming random patterns includes the step of distributing a multiplicity of strands randomly between the top and bottom surfaces within said first annular region.

17. A method as claimed in claim 16 wherein said strands are opaque fibers.

18. A method as claimed in claim 12 wherein said instrument is an optical data storage disc having a first annular region extending a given distance from the center of the disc and having a second annular region extending between the first annular region and the edge of the disc, wherein said first annular region is translucent and said second annular region is for the storing of data to be read; and wherein the step of forming random patterns includes the step of etching or laser burning a multiplicity of randomly selected points on one of the top and bottom surfaces within said translucent region.

19. A method as claimed in claim 12 further including the steps of:

illuminating the card for producing a signal pattern indicative of the random pattern within the instrument;

sensing the signal pattern corresponding to the random pattern; and

encoding information corresponding to the signal pattern on an information storage medium located on the instrument.

20. In an optical data storage disc having a central region with a first translucent annular region surrounding the central region and having a second region surrounding the first region, said second region for storing information to be read by a reading device, the improvement comprising:

a random optical pattern formed within said first region for producing a spectral response within the first translucent region of the disc which is different from that of any other disc.

21. In an optical data storage disc as claimed in claim 20, wherein information pertaining to the random optical pattern present in the first translucent region is stored in the second data storage region.

22. In combination with an optical data storage disc as claimed in claim 20 further including:

means for sensing selected characteristics of the random optical pattern formed in the first region and encoding data corresponding thereto within said second region of the disc; and

means for subsequently sensing the pattern formed within the first region and for reading the corresponding encoded data within the second region to validate the disc.

23. A combination for impeding the counterfeiting of an optical data storage disc comprising:

an optical data storage disc having a central region with a first translucent annular region surrounding the central region and having a second region surrounding the first region, said second region for storing information to be read by a reading device;

means for forming a random optical pattern within said first region;

means for sensing selected characteristics of the random optical pattern formed in the first region and encoding data corresponding thereto within said second region of the disc; and

means for subsequently sensing the pattern formed within the first region and for reading the corresponding encoded data within the second region to validate the disc.

24. A combination as claimed in claim 23 wherein said means for forming a random optical pattern within said first annular region includes the placement of opaque strands within said first region.

25. A combination as claimed in claim 23 wherein said opaque strands are opaque optical fibers.

26. A combination as claimed in claim 23 wherein said means for forming a random optical pattern within said first annular region includes one of etching and laser scribing selected portions of the first annular region of the disc.

27. A system for impeding the counterfeiting of an optical data storage disc comprising:

an optical data storage disc having a central region with a first translucent annular region surrounding the central region and having a second region surrounding

the first region, said second region for storing information to be read by a reading device;

means for forming an arbitrary optical pattern within said first region for altering the spectral response of the first region;

means for sensing selected characteristics of the arbitrary optical pattern formed within the first region and encoding data corresponding thereto within said second region of the disc; and

means for subsequently sensing the pattern formed within the first region and for reading the corresponding encoded data within the second region to determine the validity of the disc.

28. A combination as claimed in claim 27 wherein said means for forming an arbitrary optical pattern within said first annular region includes the placement of opaque strands within said first region.

29. A combination as claimed in claim 27 wherein said means for forming an arbitrary optical pattern within said first annular region includes one of etching and laser scribing selected portions of the first region.

30. A card comprising:

generally parallel top and bottom surfaces defining a space therebetween and four sides around the edge of the card;

a pattern having an irregular shape formed within the space, said card being responsive to illumination along one of its top and bottom surfaces for producing

a patterned light output at one of : (a) the other surface, and (b) at least one of the other sides of the card.

31. A card comprising:

generally parallel top and bottom surfaces defining a space therebetween and four sides around the edge of the card;

a pattern formed of light pipes extending from one side of the card to a region close to one of the top and bottom surfaces, said region being between the other sides of the card, and wherein the light pipes are responsive to illumination along one of the one side and the one of the top and bottom surfaces to produce a patterned light output at the one of the top and bottom surfaces and the one side, respectively